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JUN 19 1992

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Amendment of Parts 2, 21 and 94)
of the Commission's Rules to)
Accommodate Private Microwave) RM-7981
Systems in the 1.71 - 1.85 GHz)
Band and in Bands Above)
3 GHz)

To: The Commission

REPLY COMMENTS OF THE
UTILITIES TELECOMMUNICATIONS COUNCIL

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Summary

The overwhelming majority of comments filed in response to the UTC petition support its basic premise that there is a need to amend the existing technical and operational rules for the fixed microwave bands above 3 GHz in order to accommodate existing 2 GHz microwave systems should they be forced to relocate their facilities as a result of proposed actions in ET Docket No. 92-9.

With approximately 29,000 private and common carrier stations licensed in the 2 GHz band and potentially affected by the FCC's spectrum reserve proposal, it is incumbent upon the Commission to develop specific technical rules to accommodate both the technical, as well as the legal eligibility, requirements of all existing users of the 2 GHz band, prior to any reallocation of the 2 GHz band.

The commencement of a separate rulemaking is the only appropriate forum to develop the necessary technical rules and requirements to adequately address the needs of displaced 2 GHz microwave users, future microwave users and existing users of the replacement bands. To attempt to address these issues within the context of the existing NPRM in ET Docket No. 92-9 would not comport with the requirements of the Administrative Procedure Act (APA).

Accordingly, if the Commission is truly concerned about minimizing the disruptive impact of its proposed reallocation of the 2 GHz band, it should defer action in ET Docket 92-9 and initiate a separate rulemaking to make the 1.71-1.85 GHz, 3.7-4.2 GHz, 5.925-6.425 GHz, and 10.7-11.7 GHz bands available for licensing in the Private Operational Fixed Microwave Service under Part 94, and to set appropriate technical standards and channeling plans to make these bands usable by private and common carrier microwave systems that are displaced from the 2 GHz band, and for those new systems that would have been located in the 2 GHz band but for the Commission's spectrum reserve proceeding.

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To: The Commission

REPLY COMMENTS OF THE
UTILITIES TELECOMMUNICATIONS COUNCIL

Pursuant to Section 1.405 of the Commission's Rules, the Utilities Telecommunications Council (UTC) hereby submits the following reply comments with respect to UTC's above-referenced "Petition for Rulemaking" (Petition) to amend Parts 2, 21 and 94 of the Commission's Rules to provide for use of frequencies in the 1.71-1.85, 3.7-4.2, 5.925-6.425, and 10.7-11.7 GHz bands by private microwave systems licensed under Part 94 of the Commission's Rules.^{1/} The petition further requested that the Commission defer action in its on-going rulemaking to establish a "spectrum reserve," pending the outcome of this separate

^{1/} UTC's Petition for Rulemaking was placed on Public Notice May 1, 1992, FCC mimeo no. 22934. On June 4, 1992, the Commission released an Order denying an Alcatel Network Systems, Inc. (Alcatel) request to defer comment dates on the UTC petition, DA 92-964. Pursuant to Section 1.46 of the Commission's Rules, the June 4, 1992 Order automatically extended the deadline for reply comments for RM-7981 to June 23, 1992.

proceeding. See Notice of Proposed Rulemaking (NPRM) in ET Docket No. 92-9, FCC 92-20, released February 7, 1992.

The petition addressed steps which the FCC should have taken before (or when) it issued the NPRM in ET Docket No. 92-9, to make sure that there would, in fact, be appropriate and adequate replacement spectrum with equivalent reliability to the 2 GHz band in place, for use by displaced users. In filing the petition UTC emphasized, however, that the petition should in no way be construed as support for the Commission's proposal to establish a spectrum reserve in the 2 GHz band. As indicated in comments filed in response to the NPRM, UTC views the entire spectrum reserve concept as a misguided effort to clear the 2 GHz band for unknown, future technologies at the expense of a proven and vital public service.^{2/}

II. A Separate Proceeding Is Needed

The primary thrust of UTC's petition is that the Commission's NPRM to establish a "spectrum reserve" in the 1.85-2.20 GHz (2 GHz) microwave band does not adequately address the need for suitable replacement spectrum with appropriate technical characteristics to be in place and available for all displaced 2 GHz microwave users. The petition points out that the Commission's proposal in ET Docket No. 92-9 is based in large

^{2/} See UTC Comments in ET Docket No. 92-9, filed June 5, 1992.

part on a technical study conducted by the FCC's Office of Engineering and Technology (OET).^{3/} The study concludes that there is adequate capacity in the 3.7-4.2 GHz and 5.925-6.425 GHz common carrier bands, and the 6.525-6.875 GHz private microwave band to accommodate all 29,000 existing 2 GHz microwave stations.^{4/} Unfortunately, the vast majority of the relocation spectrum that the Commission has identified, as presently configured, is not suitable for most 2 GHz microwave operations.

Accordingly, the UTC petition requested commencement of a rulemaking proceeding to specifically address technical and coordination rules which would have to be amended to make additional spectrum available for: (1) existing 2 GHz systems that would be displaced by new, emerging technologies, (2) new or modified systems that would have been licensed in the 2 GHz band but for the FCC's new, secondary-only, licensing policies for the 2 GHz band, and (3) new systems that might not be accommodated in other private microwave bands due to the migration of currently-licensed 2 GHz private and common carrier microwave systems.

The overwhelming majority of comments filed in response to the UTC petition support its basic premise that there is a need to amend the existing technical and operational rules for the

^{3/} See "Creating New Technology Bands for Emerging Telecommunications Technology," FCC/OET TS91-1 (January, 1992).

^{4/} See FCC/OET TS91-1, pp. 17-18 and 24-25.

fixed microwave bands above 3 GHz in order to accommodate existing 2 GHz microwave systems should they be forced to relocate their facilities as a result of proposed actions in ET Docket No. 92-9. Indeed, even a number of emerging technology proponents such as Motorola, Time Warner Telecommunications, Inc. (TWT), and American Personal Communications (APC) all voiced tentative support for UTC's petition.

While there is general agreement among the commenters that the Commission needs to take steps to adequately accommodate displaced 2 GHz microwave users, there is some disagreement regarding the necessary procedure and timing of the Commission's action. UTC maintained in its petition, and still believes, that initiation of a separate rulemaking to ensure the availability of operationally and technically adequate replacement spectrum is a necessary condition precedent to any actual reallocation of the 2 GHz band. Southwestern Bell Corporation (SBC) agrees that there is a need for a separate rulemaking to resolve these issues and amend the existing technical rules. Moreover, SBC states that "[i]t is imperative that such rules be in place prior to any spectrum relocation of existing users."^{5/} Similarly, Telocator argues that fixed microwave users should not be required to relocate from the 2 GHz band until after the availability of alternate replacement frequencies. Telocator maintains that

^{5/} See SBC, p. 2.

"[s]uch action is a necessary prerequisite..."^{6/} The American Petroleum Institute (API), McCaw Cellular Communications, Inc. (McCaw), Harris Farinon, Alcatel and GTE Service Corporation (GTE) also support the position that Commission action with regard to replacement spectrum must be addressed prior to any reallocation of the 2 GHz band.

In contrast, SCS Mobilecom, TWT, APC and Motorola all argue against the initiation of any separate proceedings that would suspend or delay the Commission's resolution of ET Docket No. 92-9. TWT for example argues that the UTC petition overstates the potential harm that could be caused by the proposed relocation of existing users based on its belief that little immediate relocation of incumbent microwave users will be necessary to accommodate the introduction of personal communications services (PCS) in the 2 GHz band.^{7/} SCS Mobilecom goes even further, and argues that under its proposed PCS system there will be no need to relocate any fixed microwave licensees.^{8/} Both TWT's and SCS Mobilecom's Comments tout the benefits of their particular PCS systems and their purported ability to share spectrum with existing 2 GHz microwave systems, and therefore dismiss UTC's concerns as being either overstated or unfounded.

^{6/} See Telocator, p. 3.

^{7/} See TWT, pp. 7-8.

^{8/} See SCS Mobilecom, p. 6.

In discussing the merits of their PCS system and PCS in general, TWT and SCS Mobilecom appear to misunderstand the underlying purpose of ET Docket 92-9. The purpose of this docket is to create a "spectrum reserve" for emerging technologies. The particular services or technologies that could be introduced into the spectrum reserve are largely irrelevant in this proceeding. Indeed, the NPRM in ET Docket 92-9 specifically contemplates the initiation of separate proceedings, including a separate proceeding on PCS, to determine the actual technologies that will receive allocations from the spectrum reserve.^{9/}

Moreover, TWT's comments are limited to the impact of its proposed PCS system on microwave users licensed in the 1.85-1.99 GHz portion of the 2 GHz band, as is indicated by their cites to APC's FAST Report and a Comsearch study that TWT commissioned.^{10/} Both the APC FAST Report and the commissioned Comsearch study were limited in scope to an analysis of the 1.85-1.99 GHz band. Thus, TWT completely ignores the impact that the Commission's spectrum reserve proposal will have on the nearly 20,000 private and common carrier microwave systems licensed in the 2.11-2.15, and 2.16-2.20 GHz bands. It is wholly inappropriate, inaccurate, and inefficient, to attempt to determine the need and adequacy of available replacement spectrum based on anything less than the entire range of spectrum to be

^{9/} See NPRM in ET Docket 92-9, paras. 28-29.

^{10/} See TWT, p. 7, n. 7; and p. 9.

reallocated, particularly in light of the fact that microwave systems licensed on the upper portions of the 2 GHz band do not have the same operational and technical requirements as systems licensed in the lower portion of the band. Finally, arguments that the allocation may take place in phases and therefore might not force all portions of the 2 GHz band to relocate immediately ignore the fact that the NPRM proposes to make all new 2 GHz systems secondary regardless of where in the band these new systems are licensed.

Therefore, as UTC's petition asserts, with approximately 29,000 private and common carrier stations licensed in the 2 GHz band and potentially affected by the FCC's spectrum reserve proposal, it is incumbent upon the Commission to develop specific technical rules to accommodate both the technical, as well as the legal eligibility, requirements of all existing users of the 2 GHz band, prior to any reallocation of the 2 GHz band.

The commencement of a separate rulemaking is the only appropriate forum to develop the necessary technical rules and requirements to adequately address the needs of displaced 2 GHz microwave users, future microwave users and existing users of the replacement bands. To attempt to address these issues within the context of the existing NPRM in ET Docket No. 92-9 would not comport with the requirements of the Administrative Procedure Act (APA). As adopted, the NPRM in ET Docket 92-9 does not propose

to change any of the technical rules or coordination procedures for any of the bands proposed to be "made available" for displaced 2 GHz microwave systems, nor does it even request comment on or suggestions for changes in the technical rules. Further, UTC's petition for rulemaking goes beyond the need to accommodate existing users of the 2 GHz band and addresses the need for additional microwave spectrum to be made available for future microwave systems. Thus, it would be beyond the scope of the NPRM in ET Docket 92-9 for the Commission to develop technical standards or coordination procedures for the fixed microwave services in that docket.

In order to meet the requirements of the APA and to afford all interested parties adequate notice and opportunity to consider and comment on UTC's proposals, the Commission should promptly initiate a separate rulemaking proceeding to specifically address the technical requirements of displaced 2 GHz licensees, and to make appropriate changes in its Rules to accommodate these systems as well as new systems.^{11/} However, as UTC suggested in its petition, an acceptable alternative to the commencement of a separate rulemaking would be for the Commission to adopt a "Further Notice of Proposed Rulemaking" in ET Docket 92-9, and request interested parties to file comments on the

^{11/} UTC notes that Alcatel filed a similar "Petition for Rulemaking" RM-8004 on essentially the same subject matter and therefore suggests that the Commission consolidate consideration of the two petitions into a single rulemaking proceeding.

issue of amending the rules with regard to the microwave bands above 3 GHz. Issuance of a further notice of proposed rulemaking in this instance would appear to be consistent with the pledge that all five FCC Commissioners made to issue further notices of proposed rulemaking where necessary to address significant technical or operational issues raised as a result of ET Docket No. 92-9.^{12/} Such an approach would also be in accord with Motorola's recommendation that the various issues related to the spectrum reserve proceeding be handled concurrently rather than in a serial manner.^{13/}

Finally, to resist the initiation of a separate rulemaking to address the adequacy of replacement microwave spectrum because it might delay the resolution of ET Docket 92-9 is shortsighted. A key component of the Commission's current spectrum reserve proposals is the use of negotiations between existing 2 GHz licensees and new technology proponents. As the Public Safety Microwave Committee (PSMC) correctly points out the negotiation process will never occur, however, unless viable alternatives to the 2 GHz band are available.^{14/}

^{12/} See Letter to Senator Ernest F. Hollings, Chairman of the Senate Commerce, Science and Transportation Committee, April 20, 1992.

^{13/} See Motorola, p. 9.

^{14/} PSMC, p. 3, n. 3.

III. Frequency Allocations and Technical Rules Needed for Accommodation of 2 GHz Microwave Systems

In its petition UTC set forth a few suggestions for frequency allocations and technical rules which should be modified to make other frequency bands usable in private microwave systems. A number of the parties that submitted comments on the UTC petition argued that the proposed modifications of these bands should be expanded to incorporate the concerns of displaced 2 GHz common carrier microwave users.^{15/} UTC agrees that any rulemaking that the Commission initiates should encompass the legitimate relocation concerns of all existing 2 GHz users that are displaced as a result of the spectrum reserve.

It should also be noted that in making its suggested rule modifications UTC acknowledged that additional or different rule modifications might be necessary to fully accommodate displaced microwave systems, and that UTC fully expected a need for the Commission to listen to the suggestions and concerns of other users, equipment manufacturers, and frequency coordinators regarding the best manner to meet the requirements of existing 2 GHz microwave users. Thus, UTC supports full consideration of the proposed channelization plans and proposed technical requirements contained in Alcatel's petition, as well as any other plans that may be put forward.

^{15/} See McCaw; Telocator; GTE; and SBC.

A. 1710-1850 MHz Government Band

In its petition, UTC urged the Commission to formally commence negotiations with the National Telecommunications and Information Administration (NTIA) regarding the feasibility of utilizing a portion of the 1.71-1.85 GHz Federal government band for displaced 2 GHz microwave users on a shared basis.

A number of commenters supported this suggestion as being the least disruptive alternative to continued use of the 2 GHz band, since the propagation characteristics of both bands are nearly identical. For example, the Association of American Railroads (AAR) and the Large Public Power Council (LPPC) argued that the availability of Federal government spectrum could eliminate the myriad problems facing the Commission in relocating incumbent users of the 2 GHz band.^{16/} Motorola also recommended that the Commission "accelerate development of an agreement with NTIA" regarding 2 GHz replacement spectrum.

While the 1.71-1.85 will most likely not afford a wholesale solution to the need for replacement microwave spectrum, it could provide much needed relief to many 2 GHz microwave users, who because of extremely long path lengths, severe weather conditions, or unusual terrain, are unable to relocate to higher microwave bands. UTC therefore continues to urge the Commission

^{16/} See AAR/LPPC, pp. 2-3.

to fully explore the possibility of obtaining Federal government spectrum for displaced microwave users, and requests that the Commission defer any action that would reallocate any portion of the 2 GHz band until after such negotiations are completed.^{17/}

B. 4 GHz Common Carrier Band

UTC's petition recommended that the 3.7-4.2 GHz (4 GHz) common carrier band be made available for routine licensing in the Private Operational Fixed Microwave Service on a co-primary basis. UTC also recommended that the 4 GHz band be rechannelized into 1.6 MHz, 5 MHz and 10 MHz bandwidth channels that would be available for "stacking" to accommodate systems with wider bandwidth requirements and that loading requirements for this band be eliminated for private microwave systems.

Common carrier representatives such as McCaw, SBC and Telocator, all endorsed such proposals provided that these rules be equally applicable to displaced 2 GHz common carrier systems.

In its petition UTC noted that the proliferation of earth stations in the 4 GHz band renders the majority of the band practically useless as spectrum for new fixed microwave operations. UTC therefore recommended that the Commission designate at least 80 MHz (e.g., 40 MHz from either end of the

^{17/} This position is supported by SBC, p. 3.

band) as being available to the Fixed-Satellite Service on a secondary-only basis, thereby limiting primary use of this spectrum to the Fixed Services under Parts 21 and 94.^{18/}

The Communications Satellite Corporation (Comsat) and GTE strongly opposes this last proposal. Comsat argues that extensive sharing between operational fixed service and the satellite service in the 4 GHz band is possible through proper coordination.^{19/} What Comsat seems to ignore, however, is that the large number of displaced 2 GHz microwave users that would be attempting to obtain access to the 4 GHz band would constitute a much larger number of fixed users than the band has heretofore accommodated. Moreover, Comsat is ignoring the fact that at present many common carrier microwave users currently eligible for licensing in the 4 GHz band choose other bands because in many parts of the country the proliferation of earth stations, particularly unlicensed receive-only earth stations, renders the band a "coordination nightmare."

GTE also objects to UTC's channelization proposal if it is likely to cause interference to existing satellite operations.^{20/} UTC submits that while its proposals may arguably cause some inconvenience to existing satellite operators

^{18/} A similar proposal is contained in the Alcatel petition.

^{19/} See Comsat, p. 2.

^{20/} See GTE, pp, 6-8.

in the 4 GHz band, these changes are necessary to make the band a viable replacement "home" for displaced 2 GHz users. If the cost of relocating the existing 2 GHz users is too high, or its impact on other service providers is too adverse, then the Commission should reevaluate its proposed reallocation of the 2 GHz band as a spectrum reserve. GTE's comments simply point out the need for the Commission to carefully analyze the total impact of its "spectrum reserve" concept before rushing to judgment.

C. 6 and 11 GHz Common Carrier Bands

UTC's petition recommended that the 5.925-6.425 GHz (6 GHz) and the 10.7-11.7 GHz (11 GHz) common carrier bands be made available for routine licensing on a co-primary basis in the Private Operational Fixed Microwave Service. UTC also recommended rechannelizing the 5.925-6.425 GHz common carrier band into 1.6 MHz, 5 MHz and 10 MHz bandwidth channels that would be available for "stacking" in order to accommodate systems with wider bandwidth requirements. Finally, UTC requested elimination of the loading requirement for these bands for private microwave systems.

There was general support for these proposals and a desire that the channelization scheme and elimination of the loading requirement also apply to displaced 2 GHz common carrier systems. While UTC questions the necessity or appropriateness of

eliminating the loading requirements for common carrier microwave systems, UTC agrees that the channelization of these bands should be reviewed for both private and common carrier uses. UTC therefore urges that these rule modifications be considered as part of a rulemaking to accommodate displaced 2 GHz microwave users, both private and common carrier. The rules should also accommodate new licensees.

IV. The FCC Should Establish An Industry Advisory Committee

UTC also proposed that the FCC convene an industry advisory committee to develop new technical requirements and interference criteria for the 4, 6 and 11 GHz common carrier bands. UTC explained that the Commission's proposal in ET Docket No. 92-9 to waive eligibility requirements for private microwave access to these bands does not address the issue of interference standards between common carrier and private microwave systems in the replacement bands. UTC pointed out that the current common carrier microwave interference standards do not provide the degree of protection that many public safety/public service microwave systems require. Thus, UTC argued, absent development of more stringent interference standards, many 2 GHz private microwave users would suffer a degradation in their overall level of communications reliability if forced to relocate to a common carrier microwave band.

A number of commenters suggested that there is no need for the formation of a new industry advisory committee. For example, both APC and TWT argue that the Telecommunications Industry Association (TIA) is the appropriate body to address such issues, and that the formation of another advisory committee would be unnecessary and duplicative.^{21/} UTC does not have any objections to TIA's handling of this issue so long as private and common carrier representation on the committee is balanced, and that appropriate standards be developed before the FCC embarks on a process to clear the 2 GHz band, as it has proposed in ET Docket 92-9.

V. Conclusion

If the Commission is truly concerned about minimizing the disruptive impact of its proposed reallocation of the 2 GHz band, it should defer action in Docket 92-9 and initiate a separate rulemaking to make the 1.71-1.85 GHz, 3.7-4.2 GHz, 5.925-6.425 GHz, and 10.7-11.7 GHz bands available for licensing in the Private Operational Fixed Microwave Service under Part 94, and to set appropriate technical standards and channeling plans to make these bands usable by private and common carrier microwave systems that are displaced from the 2 GHz band, and for those new systems that would have been located in the 2 GHz band but for the Commission's spectrum reserve proceeding.

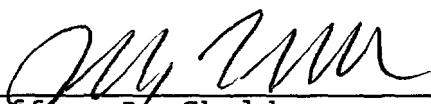
^{21/} See APC, p. 2; and TWT, p. 7, n. 6.

WHEREFORE, THE PREMISES CONSIDERED, the Utilities Telecommunications Council respectfully requests the Commission to initiate a rulemaking proceeding consistent with the views expressed herein.

Respectfully submitted,


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